A Man With Fever, Gingival Plaque, and Diffuse Lymphadenopathy
(See pages 1118–9 for the Photo Quiz.)

Diagnosis: Acquired Immunodeficiency Syndrome With Disseminated Histoplasmosis

Infection with *Histoplasma capsulatum* can produce a broad range of clinical diseases and may involve varied organ systems via lymphatics and the bloodstream, similar to the situation with tuberculosis. Clinical presentations in patients with AIDS with disseminated histoplasmosis include fever, respiratory symptoms, weight loss, diarrhea, malaise, anorexia, hepatosplenomegaly, and lymphadenopathy [1, 2]. Oral involvement is relatively rare, but when a mucocutaneous lesion (Figure 1) is found, the clinical physician should consider it as a manifestation of systemic infection [2].

The epidemiological data of histoplasmosis in Taiwan were scarce, and there was only a national survey of histoplasmin skin tests in the 1950s, revealing that 7 (0.19%) of 3589 school children had a positive reaction [3]. However, the first case in Taiwan was not reported until 1997, and since then, only a limited number of cases have been described. Only 3 cases of...
histoplasmosis were likely to be indigenously acquired [4, 5], and no outbreak or clustering of cases was recognized. These facts indicated that histoplasmosis is rare and not endemic in Taiwan. Most likely, this patient acquired histoplasmosis in his home country of Vietnam. Although the English literature of this fungal disease in Vietnam is limited [6], US Centers for Disease Control and Prevention referred to Vietnam as one of the countries in Southeast Asia with human indigenous cases of histoplasmosis [7].

Disseminated histoplasmosis has been reported to mimic disseminated mycobacterial infections or lymphoma [8, 9]. The clinical ambiguity easily led to misdiagnosis and a delay in antifungal treatment. This patient initially received a diagnosis of lymphoma because of the clinical presentations and diffused lymphadenopathy. A Liu stain of bone marrow biopsy specimen showed oval yeasts with obvious vacuolated cytoplasm (Figure 2). The biopsy specimens revealed numerous intracytoplasmic and extracellular oval yeasts, measuring 2–4 μm, with budding (Figure 2). Similar histological findings can be noted in infections caused by *Histoplasma capsulatum*, * Blastomyces dermatitis*, *Candida glabrata*, *Cryptococcus neoformans*, *Penicillium marneffei*, or Leishmania species [10]. Fungal cultures of gingival biopsy specimens yield *H. capsulatum* (Figure 3). Although *Scedonionium* species also have similar tuberculate macroconidia, they could be differentiated from *H. capsulatum* by not being dimorphic and not forming microconidia.

Disseminated histoplasmosis is usually fatal without appropriate antifungal therapy. Amphotericin B at a dose of 0.7–1.0 mg/kg or a lipid formulation of amphotericin B at a dose of 3–5 mg/kg was suggested as induction therapy, followed by oral itraconazole (200 milligrams twice daily) for at least 12 months [11]. In patients receiving antiretroviral therapy, the interactions between itraconazole and antiviral agents must be considered. Highly active antiretroviral therapy with zidovudine-lamivudine and atazanvir was started in conjunction with oral itraconazole, and the patient’s lymph nodes and oral lesion regressed.

**Notes**

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**Potential conflicts of interest.** All authors: No reported conflicts.

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**References**


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